

### **REMARKS**

The Applicant thanks the Examiner for the very thorough examination of the application.

Claims 1, 3-16 and 19-20 are pending in the application. By this Amendment, independent claims 1 and 11 are amended to clarify their meaning without changing their scope.

No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

### **Rejection Under 35 U.S.C. §112, Second Paragraph**

Claims 1 and 2-10 stand rejected under 35 USC §112, second paragraph for being indefinite. This rejection is respectfully traversed.

The Office Action indicates that the language “to the respective source drivers” and “to the respective source drivers, respectively” is indefinite and unclear as to which source drivers are being claimed, the language not specifying any particular groupings of the source drivers. Applicant respectfully disagrees for the following reasons.

A standard dictionary definition, e.g., from “dictionary.com,” of the adjective “respective” is “pertaining individually or severally to each of a number of persons or things.” (emphasis added).

In view of this definition, it appears that what was claimed in the Amendment filed on August 4, 2006 was “at least two data buses connected between the timing controller and each of

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the source drivers,” and “at least two data buses transmitting the data separately output from the timing controller to each of the source drivers,” in claim 1, and “the at least two data buses are connected between the timing controller and each source driver, respectively.”

Although Applicant believes that the meaning of the language in issue, which includes the adjective “respective” is clear, Applicant is following the Examiner’s helpful suggestion to clarify the meaning of the language in issue, without changing the scope of the claims, by amending independent claims 1 and 11 to recite “each of the source drivers.” Hopefully, this amendment, which merely substitutes a definition of “respective” for that word, clarifies the meaning of the language in issue.

Support for this amendment is found in the aforementioned conventional definition of the adjective “respective,” and in Applicant’s originally filed disclosure. In this regard, Applicant notes that the exemplary embodiment of Applicant’s invention shown in Fig. 4 and described in the specification, for example, clearly shows that each source driver 43 is connected to the timing controller via two data buses DB1 and DB2 and that the timing controller provides two clock signals to each source driver 43.

Accordingly, reconsideration and withdrawal of this rejection of claims 1 and 3-10 under 35 USC §112, second paragraph, are respectfully requested.

### **ENTRY OF AMENDMENTS IS PROPER**

Entry of these amendments is proper because they merely clarify the meaning of the claim language that is objected to by the Examiner without changing its scope and which has been completely searched and examined on its merits.

### **Rejections Under 35 U.S.C. §103(a) Based On Nakano**

Claims 1, 5, 11, 16, 19 and 20 are rejected under 35 U.S.C. §102(e)/103(a) as being unpatentable over U.S. patent 6,529,181 to Nakano et al. ("Nakano"). This rejection is respectfully traversed.

During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). This burden can be satisfied when the PTO presents evidence, by means of some teaching, suggestion or inference either in the applied prior art or generally available knowledge, that would have appeared to have suggested the claimed subject matter to a person of ordinary skill in the art or would have motivated a person of ordinary skill in the art to combine the applied references in the proposed manner to arrive at the claimed invention. See Carella v. Starlight Archery Pro Line Co., 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert.

denied, 475 U.S. 1017 (1986); In re Rinehart, 531 F.2d 1048, 1051-1052, 189 USPQ 143, 147 (CCPA 1976).

If the PTO fails to meet this burden, then the applicant is entitled to the patent. However, when a *prima facie* case is made, the burden shifts to the applicant to come forward with evidence and/or argument supporting patentability. Patentability *vel non* is then determined on the entirety of the record, by a preponderance of evidence and weight of argument, *Id.*

A prior art reference anticipates the subject matter of a claim when that reference discloses every feature of the claimed invention, either explicitly or inherently. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed Cir. 1997). While, of course, it is possible that it is inherent in the operation of the prior art device that a particular element operates as theorized by the Examiner, inherency may not be established by probabilities or possibilities. In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) and In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Because the rejection is based on 35 U.S.C. §103, what is in issue in such a rejection is "the invention as a whole," not just a few features of the claimed invention. Under 35 U.S.C. §103, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In

determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. See Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981,

180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A showing of a suggestion, teaching, or motivation to combine the prior art references is an “essential evidentiary component of an obviousness holding.” C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not “evidence.” See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Moreover, it is well settled that the Office must provide objective evidence of the basis used in a prior art rejection. A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Furthermore, during patent examination, the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the Applicant is entitled to the patent. Only when a *prima facie* case is made, the burden shifts to the applicant to come forward to rebut such a case.

Initially, it is not clear what the actual statutory basis for this rejection is. On page 2, the section heading above paragraph No. 3 states “Claim Rejections – 35 USC §102”, whereas, the rejection in paragraph 5 on page 3 states that the rejection is under 35 USC §103(a). Clarification is respectfully requested.

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Regardless of the statutory basis for the rejection, Applicant respectfully submits that Nakano fails to either anticipate, or render obvious, the claimed invention for a number of reasons.

Firstly, the claimed invention recites a combination of features, including “a plurality of source drivers.” Nakano clearly does not disclose or suggest “source drivers.” The Office Action incorrectly indicates that elements 130 in Nakano are source drivers. Actually, elements 130 in Nakano are disclosed as “drain drivers” throughout Nakano’s specification. See, in this regard, col. 4, lines 48-55 of Nakano.

Secondly, Nakano does not provide at least two clock signals to each source driver (130 or 130’ or 130”), as recited. For example, as explained in col. 6 of Nakano, starting in line 30, a single clock signal D4 is transmitted to a group A of odd numbered drain drivers 130 in Fig. 1 through a signal line 131, whereas a different single clock signal D5 in turn is transmitted to a group B of even-numbered drain drivers 130 in Fig. 1 through a signal line 132. In other words, each odd numbered drain driver 130 and each even numbered drain driver 130 are provided with just a single clock signal. This differs from what is positively recited in claims 1 and 11, each of which positively recites a timing controller outputting to each of the source drivers at least two clock signals.

Thirdly, Nakano does not provide at least two data buses connected between the timing controller and each of the source drivers, as positively recited in claims 1 and 11. For example, as shown in Figs. 5A and 15A of Nakano, only a single bus line is connected to each drain driver. Similarly, only one data bus line 134 is shown in Fig. 1 of Nakano as being connected to  
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a single drain driver 130. While Nakano actually discloses using two bus lines 134a and 134b in Figs. 5A and 5B, Nakano discloses connecting them alternatively to the drain drivers 130, instead of connecting both buses to a single drain driver.

Accordingly, Nakano neither anticipates nor suggests, nor otherwise renders obvious, the claimed invention of independent claims 1 and 11, or of dependent claims 5, 16, 19 and 20, each of which depends from one of those independent claims.

Concerning the language “and the source drivers separately sample the data to thereby reduce electricity consumption,” Applicant respectfully submits that Nakano does not achieve this claimed feature, because it does not disclose or suggest that at least two data buses are connected between the timing controller and each of the source drivers to achieve this. The argument that the claimed structure is taught by Nakano is incorrect, for reasons pointed out above. The Office Action fails to achieve this claimed feature because Nakano does not disclose or suggest the claimed structure or the same function. Moreover, as pointed out above, to make out a *prima facie* case of inherency, the Office must provide objective factual evidence that what is alleged to inherently occur, must necessarily occur. Such a showing has not been made in this rejection.

Reconsideration and withdrawal of this rejection of claims 1, 5, 11, 16, 19 and 20, under whatever statutory basis it is made, are respectfully requested.



Claims 3, 4, 7-9, 12-15, 17 and 18 are rejected under 35 U.S.C. §103(a) as being obvious over Nakano in view of Uchino (U.S. Patent 6,040,816). This rejection is respectfully traversed.

Initially, Applicant respectfully notes that Nakano does not disclose or render obvious the invention recited in independent claims 1 and 11, and that Uchino is not applied to remedy the aforementioned deficiencies in Nakano. Thus, even if one of ordinary skill in the art were properly motivated to modify Nakano in view of Uchino, as suggested, the resulting modified version of Nakano would not disclose, or suggest, or otherwise render obvious, the claimed invention.

Moreover, the Office Action fails to present objective factual evidence of proper motivation for one of ordinary skill in the art to modify Nakano, as suggested, in view of Uchino. Applicant respectfully submits that Nakano and Uchino differ from one another in a manner which teaches away from the proposed combination of these two references. In this regard, Applicant notes that these two devices of Nakano & Uchino differ in their fundamental mode of operation in that Nakano supplies its data pulses to the drain electrodes of its transistors, whereas Uchino supplies its data pulses to the source electrodes of its transistors, Uchino's drain electrodes being connected to its pixel electrodes. Accordingly, Applicant respectfully submits that the modification of Nakano in view of Uchino would result in an inoperative device.

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the Appellant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be

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productive of the result sought by the Appellant. See W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1550-51, 220 USPQ 303, 311 (Fed. Cir. 1983) (the totality of a reference's teachings must be considered), cert. denied, 469 U.S. 851 (1984); In re Sponnoble, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969) (references taken in combination teach away since they would produce a "seemingly inoperative device"); In re Caldwell, 319 F.2d 254, 256, 138 USPQ 243, 245 (CCPA 1963) (reference teaches away if it leaves the impression that the product would not have the property sought by the Appellant). See, In re Gurley, 31 USPQ2d 1130 (Fed. Cir. 1994).

The Office Action then relies on Fig. 2 of Uchino, which shows a timing chart for an active matrix LCD device which has a problem of dispersion of phase among sampling pulses which Uchino is designed to correct. In other words, the embodiment of Uchino on which this rejection is based is an embodiment that Uchino tries to correct, by referring to a conventional phase dispersion solution embodiment (Fig. 4) and by referring to a phase dispersion solution embodiment of its own (Figs. 6-10). Applicant respectfully submits that one of ordinary skill in the art would definitely not be motivated to modify Nakano using a scheme that is eschewed by Uchino in the sense that the timing scheme of Uchino relied on in this rejection is taught by Uchino to create the phase dispersion problem that its invention solves. In other words, Uchino teaches away from modifying Nakano as suggested because the source of the suggestion is in an embodiment of Uchino which has the problem that Uchino is directed to solve, and the timing associated with Uchino's dispersion solution does not have that timing feature.

Accordingly, the final Office Action fails to make out a *prima facie* case of proper motivation to modify Nakano as suggested and therefore fails to make out a *prima facie* case of obviousness of the claimed invention.

Reconsideration and withdrawal of this rejection of claims 3, 4, 7-9, 12-15, 17 and 18 are respectfully requested.

Claims 2, 6 and 10 stand rejected under 35 USC §103(a) as being unpatentable over Nakano in view of U.S. Patent 5,252,957 to Itakura. This rejection is respectfully traversed.

Initially, Applicant notes that claim 2 was canceled in the Amendment filed on August 4, 2006, so this rejection is moot with respect to claim 2.

Furthermore, Applicant respectfully notes that Nakano does not disclose or render obvious the invention recited in independent claims 1 and 11, and that Itakura is not applied to remedy the aforementioned deficiencies in Nakano. Thus, even if one of ordinary skill in the art were properly motivated to modify Nakano in view of Itakura, as suggested, the resulting modified version of Nakano would not disclose, or suggest, or otherwise render obvious, the claimed invention.

Accordingly, the final Office Action fails to make out a *prima facie* case of obviousness of the claimed invention.

Reconsideration and withdrawal of this rejection of claims 2, 6 and 10 are respectfully requested.

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### **Information Disclosure Statement**

Applicant filed an Information Disclosure Statement (IDS) very recently, i.e., on January 30, 2007, and is bringing this fact to the attention of the Examiner to that the references cited therein can be considered along with the remarks and amendments filed herein. Applicant respectfully requests that the Examiner consider the references cited in the IDS and provide Applicant with an initialed copy of the PTO/SB/08 form filed with the IDS in the next Office Action.

### **Request for Personal Interview**

Applicant respectfully requests to conduct a personal interview with respect to the merits of this Amendment should there be any outstanding matters that need to be resolved after initial consideration of this Amendment by the Examiner.

### **Conclusion**

Applicant respectfully submits that the rejections have been overcome, obviated or rendered moot. No issues remain. The Examiner is accordingly respectfully requested to allow the application and pass it to issue.

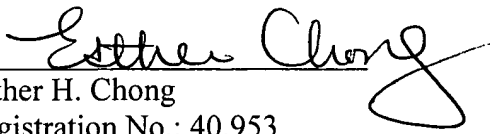
As noted above, should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert J. Webster, Reg. No. 46,472 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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